ORIGINAL EXCEPTION

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IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASES IN ITS RATES AND CHARGES BASED THEREON FOR UTILITY SERVICE BY ITS PARADISE VALLEY DISTRICT	DOCKET NO. W-01303A-05-0405
IN THE MATTER OF THE APPLICATION OF ARIZONA-AMERICAN WATER COMPANY, INC., AN ARIZONA CORPORATION, FOR APPROVAL OF AN AGREEMENT WITH THE PARADISE VALLEY COUNTRY CLUB	DOCKET NO. W-01303A-05-0910

EXCEPTIONS OF

ARIZONA-AMERICAN WATER COMPANY

Arizona-American Water Company ("Arizona-American" or the "Company") hereby submits the following exceptions to the Recommended Opinion and Order.

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Arizona Corporation Commission
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I. INTRODUCTION

Arizona-American thanks the Administrative Law Judge ("ALJ") for writing a well-reasoned, thorough, Recommended Opinion and Order. However, Arizona-American must take two exceptions. The first is offered solely to address what appear to be three inadvertent errors. The second exception is to the recommended 10.4% return on equity ("ROE"). This level is too low to adequately compensate investors for the risk associated with a highly leveraged capital structure. This would result in Arizona-American, a company in financial distress, receiving—by a large margin—the lowest overall cost of capital awarded in recent years. This would further compound Arizona-American's financial distress. Finally, the Recommended Opinion and Order would endorse a methodology that inadvertently encourages financial schemes and higher customer rates.

II. EXCEPTION NO. 1 – MINOR ERRORS SHOULD BE CORRECTED

On page 22, line 12, the following sentence appears: "Arizona-American proposes a cost of capital and rate of return of 12 percent; Staff recommends 10.4 percent; and RUCO recommends 10.0%." The reference should be to equity rate of return. To correct for this error, the sentence should read: "Arizona-American proposes a cost of equity capital of 12 percent; Staff recommends 10.4 percent; and RUCO recommends 10.0%."

On page 31, line 16, the following sentence appears: "It would also institute, effective October 1, 2007, a Public Safety surcharge of $1.00 per 1,000 gallons on both the second tier and third residential commodity rate and on the first tier commercial commodity rate." The alternative surcharge was actually to be applied only to the second tier of the commercial commodity rate. Therefore, the sentence should read: "It would also institute, effective October 1, 2007, a Public Safety surcharge of $1.00 per 1,000 gallons on both the second tier and third tier residential commodity rate and on the second tier commercial commodity rate."

The High Block Usage Surcharge and the Public Safety Fire Flow Surcharge are also supposed to apply to Turf Facility customers. Therefore, the references on page 44, lines 8 and 20, should be to "Commercial and Turf Facility Customers."

Attached as Exhibit A is a suggested amendment to the Recommended Opinion and Order to make these corrections.

III. EXCEPTION NO. 2 – THE RECOMMENDED ROE IS TOO LOW TO COMPENSATE INVESTORS FOR THE RISK OF FINANCIAL LEVERAGE

The Recommended Opinion and Order thoroughly discusses how the parties calculated their base ROE estimates. However, the issue in this case is not the base ROE estimates. Ultimately, the parties' ROE estimates for their sample companies do not differ that much. Based on his water-company sample, Dr. Vilbert applied standard ROE estimation methodologies to arrive at a range of ROE estimates from 7.2 to 10.8%. Applying the same methodologies to his gas-company sample, Dr. Vilbert calculated an ROE range of 7.7 to 9.6%. Staff's base estimate of 10.0% and RUCO's base estimate of 9.5% fall squarely within Dr. Vilbert's overall range of 7.2 to 10.8% for his two samples.

The Recommended Opinion and Order largely ignores the most important point of Arizona-American's evidence—*financial* risk matters to investors. This is not business risk, such as whether investors can earn on their investments. This is the risk associated with increased borrowing, also known as leverage. Leverage can increase returns to investors, but it also can magnify losses. The greater the leverage, the greater the financial risk. This case is about how to properly compensate equity investors as leverage increases.

The parties do not disagree about the need to compensate equity investors for greater leverage. Staff states:

> Because Arizona-American PV's capital structure is more highly leveraged that the sample water utilities capital structures, its stockholders bear additional

> financial risk. As a result its cost of equity is higher than that of water companies in Staff's sample[1]

RUCO agrees:

> Publicly traded companies with a level of debt similar to the Company's would be perceived as riskier than the average of the sample and would therefore have a higher expected return on common equity.[2]

Because the parties agree on the need to provide equity investors with greater returns as leverage increases, the only remaining issue is how to correctly compensate equity investors for leverage increases.

In its brief, Arizona-American discussed at length the fundamental premise that overall weighted average returns to investors are constant over a wide range of equity ratios. As developed by two Nobel Prize winners, Modigliani and Miller, the basic premise is known as Modigliani and Miller's Proposition II: *The expected rate of return on the common stock of a levered firm increases in proportion to the debt-equity ratio (D/E) expressed in market values . . .*"[3] Or, as put by Dr. Kolbe: "*There's no magic in financial leverage.*"[4] Therefore, the after-tax cost of capital recovered from customers should be constant over a large range of equity ratios.

However, both RUCO's and Staff's methodologies give results that are inconsistent with Proposition II. Their calculated after-tax costs of capital do vary as equity ratios change. Two examples will confirm this.

As stated, RUCO recognized that some kind of additional return was needed to adjust for Arizona-American's increased leverage. RUCO witness William Rigsby's sample companies averaged 49.9% equity and 50.1% debt compared to Arizona-American's 37% equity and 63% debt. He therefore added 50 basis points to his base ROE calculation to arrive at his final

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[1] Staff Brief, pp. 15-16.

[2] RUCO Brief, p. 26.

[3] Brealey and Myers, Principles of Corporate Finance (6th Ed.), p. 481.

[4] Direct Testimony of A. Lawrence Kolbe, Hearing Exh. A-10 at 33.

recommendation of 10.0% ROE. But an *ad hoc* 50-basis-point adder cannot adequately compensate equity investors for the Company's highly leveraged capital structure.

A simple example will confirm this conclusion. If Arizona-American's leverage were exactly the same as Mr. Rigsby's sample company's, he would clearly (and correctly) not have recommended any leverage adjustment to his 9.5% ROE recommendation. In that case, the Company's after-tax cost of capital would be calculated as shown in Table 1:

Table 1 – <u>RUCO: AAW's ATWACC (assuming equal leverage as sample companies)</u>

	% Equity	Return	% LT Debt	Return	After-tax Return	After-tax WACC
AAW - Same Leverage	49.90%	9.50	50.10%	5.42	3.28	6.38%

The total after tax cost to Arizona-American's customers would be 6.38% and rates would be set based on this return.

If RUCO's leverage adjustment were correct, the after-tax weighted cost of capital to customers should not change when Arizona-American's actual leverage is used. However, this is not the case, as Table 2 shows:

Table 2 – <u>RUCO: AAW's ATWACC (actual equity ratio of 36.7%)</u>

	% Equity	Return	% LT Debt	Return	After-tax Return	After-tax WACC
AAW - Actual leverage	36.70%	10.00	63.30%	5.42	3.28	5.75%

Table 2 demonstrates that RUCO's 50-basis-point adjustment (from 9.5 to 10.0%) was inadequate, because the after-tax weighted cost of capital plummeted from 6.38% to 5.75%, even though the debt cost did not change. Therefore, equity investors are now inadequately compensated for the increased risk of the more highly leveraged capital structure. Looking at it from the customers' point of view; they are benefiting from the Company's higher percentage of low-cost, tax-shielded debt, but they are not compensating the Company's equity investors for their greater financial risk. This is fundamentally unfair.

Ad hoc adjustments, like the 50-basis-point adder used by Mr. Rigsby, cannot correctly adjust returns on equity, so that customers are indifferent toward their utility's capital structure.

Unless ROEs are correctly adjusted, companies will resist issuing low-cost, tax-shielded debt, even if customers' rates would be reduced as a result. In other words, RUCO's methodologies actually promote higher rates.

The same points made concerning RUCO's ROE testimony also apply to Staff's ROE testimony. The average capital structure for Staff's sample water utilities was "comprised of approximately 50.9% debt and 49.1% equity."[5] Staff calculated the ROE for its sample utilities to be 9.8%.[6] Based on a method developed by Professor Robert Hamada, Staff then added 60 basis points to its sample company ROE estimate to derive its overall ROE recommendation of 10.4%.[7]

Again, Staff deserves credit for recognizing that equity investors require additional compensation as leverage increases. However, the Hamada leverage adjustment method is almost 40 years old.[8] It well predates "the wealth of research the underlies the finding that ATWACC is essentially flat across a broad range of capital structures."[9] By contrast, Arizona-American's methodology applies this fundamental proposition to properly determine ROEs, regardless of the leverage.

Another simple example demonstrates that Staff's methodology results in after-tax weighted costs of capital that vary with equity ratios. Again, we will assume that AAW's leverage was the same as the sample companies, which would have resulted in a 9.8% ROE recommendation with no leverage adjustment.

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[5] Staff Brief, p. 14.

[6] *Id.*, p. 15.

[7] *Id.*, p. 16.

[8] The Hamada method was developed in a 1969 paper. See Rebuttal Testimony of A. Lawrence Kolbe, Hearing Exh. A-11 at 23, n. 8.

[9] *Id.* at 23.

Table 3 – Staff: AAW's ATWACC (assuming equal leverage as sample companies)

Staff	% Equity	Return	% LT Debt	Return	After-tax Return	After-tax WACC
AAW - Same Leverage	49.10%	9.80	50.90%	5.42	3.28	6.48%

The resulting ATWACC would be 6.48%. *This is exactly the same ATWACC requested by the Company.*

Again, we will now use the Company's actual equity ratio of 36.7% along with Staff's 60-basis-point adjustment to demonstrate how ATWACC drops significantly.

Table 4 – Staff: AAW's ATWACC (actual equity ratio of 36.7%)

Staff	% Equity	Return	% LT Debt	Return	After-tax Return	After-tax WACC
AAW - Actual Leverage	36.70%	10.40	63.30%	5.42	3.28	5.89%

Even after applying Staff's 60-basis-point upward ROE adjustment, ATWACC has still dropped by almost 60 basis points. By contrast, the Arizona-American's methodology keeps ATWACC constant, which properly compensates investors and leaves customers indifferent to a company's actual capital structure.

A 5.89% ATWACC would be significantly lower than any awarded by the Commission in the last two years, despite rising interest rates over the time period. For convenience, Arizona-American reprints the summary table from its brief.

Table 5 – Recent ACC Overall Cost of Capital Awards

Utility	**Decision**	**Year**	**% Equity**	**Return**	**% P'fd Equity**	Return	**% ST Debt**	Return	After-tax Return	**% LT Debt**	Return	After-tax Return	**After-tax WACC**
AAW RUCO		**2006**	**36.70%**	**10.00**					0.00	**63.30%**	**5.42**	3.28	**5.75%**
AAW Staff		**2006**	**36.70%**	**10.40**					0.00	**63.30%**	**5.42**	3.28	**5.89%**
AAW Requested		**2005**	**36.70%**	**12.00**					0.00	**63.30%**	**5.42**	3.28	**6.48%**
Southwest Gas	68487	2005	40.00%	9.50	5.00%	8.20			0.00	55.00%	7.61	4.60	**6.74%**
Pineview Water	67989	2005	51.00%	8.90					0.00	49.00%	5.43	3.29	**6.15%**
APS	67744	2005	55.00%	10.25					0.00	45.00%	5.80	3.51	**7.22%**
Chapparal City	68176	2005	58.73%	9.30					0.00	41.27%	5.10	3.09	**6.74%**
AZ Water Eastern	66849	2004	66.20%	9.20			5.60%	4.00	2.42	28.00%	8.46	5.12	**7.66%**
AZ Water Western	68302	2005	73.40%	9.10					0.00	26.60%	8.40	5.08	**8.03%**
Las Quintas Serenas	67455	2005	100.00%	8.10					0.00	0.00%	0.00	0.00	**8.10%**
Rio Rico Utilities	67279	2004	100.00%	8.70					0.00	0.00%	0.00	0.00	**8.70%**

If the Commission were properly adjusting for leverage, ATWACCs should be relatively constant, after taking into account differences in embedded debt costs and variations in ROE caused by general economic factors. Instead, the trend is clear; the greater the leverage, the lower the ATWACC awarded by the Commission.

The basic reason offered by the ALJ to reject the Company's leverage adjustment methodology was that it is new and has not be widely adapted by other State regulatory commissions. The ALJ did not and could not challenge the basic financial theory and supporting research that underpins the method. Nobel Prizes have been awarded for the insights that support it.

In fact the Company's methodology has been accepted in many jurisdictions. In the last 15 years, government-owned utilities have been privatized in countries such as Australia, New Zealand, and Great Britain.[10] Regulators in these countries were able to study regulatory regimes throughout the world, including U.S. state and federal rate regulatory bodies. They were able to evaluate what worked best in the other regimes and update their rate-setting methodologies to incorporate the latest in financial research.[11] Regulators in these countries now set rates based on methodologies consistent with the one advocated by Drs. Kolbe and Vilbert.

In the U.S., the federal government's newest rate regulation body, the Surface Transportation Board was established in 1995.[12] It was also able to take advantage of the latest financial research. It also uses market value weights to determine the required rates of return for interstate railroads, as recognized by the most widely used financial textbook in U.S. universities: Brealey and Myers, *Principles of Corporate Finance.*[13]

Arizona-American concedes that so far only one state regulatory body has adopted the Company's methodology, the Missouri Public Service Commission. However, that should not

[10] *Id.*, p. 29.

[11] *Id.* pp. 29-30.

[12] http://www.stb.dot.gov/stb/about/overview.html.

[13] Now in its 8th edition, 2006. Although Arizona-American cannot verify it, the Brealey and Myers textbook is purportedly used in every one of the top 20 U.S. MBA programs. It has also been cited as authority dozens of times in Staff's own cost-of-capital testimony.

deter this Commission from being the second state commission to properly apply modern financial methods to properly calculate the effects of leverage on required ROEs. Ultimately, if the mere fact that an advance in technique has not yet been widely incorporated were to prevent its adoption by regulators, there would be no changes in regulatory procedures in the U. S.

Arizona-American does not know what kind of evidence has been presented in the few other U.S. jurisdictions that have not accepted the Company's methodology to adjust for leverage. However, the evidence in this case clearly demonstrates that there is a problem with the way the Commission is presently adjusting ROEs for leverage differences. As Table 5 reveals, customers are overpaying equity investors in companies with little leverage and underpaying equity investors in companies with more leverage than the industry average. Thus, the Commission has been setting customer rates based on leverage-adjustment methodology that actually discourage companies from borrowing at low tax-shielded interest rates and passing the savings on to customers.

The ALJ relied on a chart taken from Exhibit S-12 that purported to show that the recommended 10.4% ROE was within the range of equity returns awarded to Arizona-American affiliates by other state regulators. However, this chart is of little value, because it fails to account for differences in the affiliates' capital structures.

Q. Dr Kolbe, did you look at, review an exhibit – I believe it was S-12, is that right? Did that contain a list of returns on equity that were requested and authorized in various jurisdictions?

A. I held it in my hand and looked at it. I didn't study it.

Q. For that to be complete, is there any other information that you would want to see in that kind of document?

A. Sure, capital structure.

Q. Why would that be?

A. For the reasons Dr. Vilbert discussed. A cost of equity value is not, is not meaningful by itself because it might involve the same level of business risk but widely varying [levels] of management [risk].[14]

To properly account for capital-structure variances, the Company prepared Exhibit A-33, which displays the after-tax weighted average costs of capital awarded by regulators to Arizona-American affiliates in 2004 and 2005. Page one of Exhibit A-33 shows that equity ratios for Arizona-American's affiliates ranged from 0.37 to 0.59. Allowed returns varied from 9.85 to 10.1%. After weighting the cost components, the ATWACCs awarded in 2005 averaged 6.19%. For Arizona-American to equal the average ATWACC awarded to its affiliates in 2005, the last line of page one shows that its ROE would have to have been set at 11.01%, 61 basis higher than the Staff is recommending in 2006, after numerous interest-rate increases by the Federal Reserve Board.

Similarly, on page two, the average ATWACCs for 2004 was 6.55%. Again, on the last line, the required ROE for Arizona-American to equal the average ATWACC would be 12.0%.

Again, what Exhibit A-33 shows is that Staff's recommended 10.4% ROE is well below what Arizona-American would need to be compensated at the same average level that other regulatory commissions have provided to its affiliates. The Company's requested 12.0% ROE, when applied to its highly leveraged capital structure will fairly compensate equity investors, while still (as shown on Table 5) providing its customers one of the lowest ATWACCs in Arizona.

Finally, a 12% cost of equity and a 5.42% cost of debt are already too low to fully compensate investors over most of the period in which rates will be in effect in this case. Given recent interest rate rises, it is reasonable to assume that if the parties were to today recalculate proxy ROEs, the results would be higher than calculated a year ago. Further, much of Arizona-American's low-cost debt is maturing in November 2006, so the Company recently has had to

[14] 2 Tr. 246-47.

apply to refinance that debt.[15] Given recent interest-rate trends, the refinanced debt will also carry a higher interest rate. Therefore, the embedded cost of debt used to set rates in this case will be too low to compensate the Company for its actual cost to carry debt during most of the period in which rates will be in effect in this case.

Companies like Arizona-American that are more leveraged than average face a difficult challenge in Arizona. The Commission has been encouraging the Company to increase its equity ratio, a goal the Company shares. On the other hand, the Commission has not been setting equity returns high enough to attract the needed equity by fairly compensating investors for the greater risk associated with greater leverage. This sets up a situation where more borrowing may be the Company's only option to finance needed infrastructure, but, unfortunately, the cost of borrowing also increases along with greater leverage. In the worst case, if equity returns do not properly compensate for leverage risk, regulators could send a company into a death spiral where all equity is ultimately wiped out by the bankruptcy court, not a desirable outcome for the customers, the regulators, or the company.

Interest payments on debt are expenses for tax purposes, so the revenue requirement associated with a dollar of debt investment is substantially lower in today's markets than for a dollar of equity investment. Companies <u>should</u> be encouraged, within reason, to finance new investments by borrowing instead of issuing equity. However, because the Commission rewards companies with higher and higher returns as equity ratios increase, Arizona companies are reluctant to issue low-cost debt. Further, because the Commission rewards equity investment, it may be inadvertently encouraging financing schemes that inflate equity ratios by extorting "equity" investments from developers and hiding debt at the holding company level.[16]

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[15] Docket No. WS-01303A-06-0283.

[16] See various comments filed in Docket No. W-00000-06-0149, In The Matter Of The Commission's Generic Evaluation Of The Regulatory Impacts From The Use Of Non-Traditional Financing Arrangements By Water Utilities And Their Affiliates.

The ALJ suggests that "Arizona-American's capital structure itself, with its 63.3% debt, belies this argument [that Arizona companies are reluctant to issue low-cost debt]."[17] Two responses are appropriate.

First, the statement confuses cause and effect. As discussed in the Company's brief, Arizona-American is actually shedding equity, through ongoing losses.[18] This allows debt to increasingly dominate the Company's balance sheet. If ROEs were adequate, losses would be avoided and equity ratios would grow. Further, the Company is only able to borrow at reasonable rates because its affiliate is still willing to loan it funds.[19] Arizona-American cannot even qualify for loans from the Arizona Water Infrastructure Authority.[20]

Second, Arizona-American has been playing by the rules. Arizona-American could have been churning tens of millions of dollars in developer contributions into equity, and hiding debt at the holding-company level, as other Arizona water utilities appear to have been doing in recent years. If it had, its equity ratio would be markedly better than it is now.

As discussed at length in Arizona-American's brief, the Commission's historic failure to properly compensate equity investors for increased leverage has been compounded by its overcompensation of equity investors in companies with equity ratios higher than industry averages. Consequently, rates for customers of these companies have been set too high, because the Commission has set the weighted average cost of capital too high.

Arizona-American is not suggesting that a company should be 100% debt financed, any more than that it should be 100% equity financed. However, there is a broad range of acceptable equity ratios. Ratios in the neighborhood of 20 to 80 percent appear reasonable. To encourage companies' capital structures to fall within this range, the Commission's policy should be that a

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[17] P. 27, l. 26-27.

[18] Company Brief, p. 31, l. 10.

[19] Company Reply Brief, p. 12, l. 11-12.

[20] *Id.*, l. 6-12

company's overall after-tax cost of capital should not vary as long as its equity ratio stays in this range.

The Commission has the opportunity—by setting the Company's allowed ROE at a level sufficient to compensate investors for the financial risk associated with higher leverage—to help begin restoring Arizona-American's financial health. This is only fair; Arizona-American's customers have benefited for many years from its ability to continue to borrow large amounts of subsidized, low-cost, tax-shielded debt. Arizona-American's equity investor (American Water) makes those borrowings possible by its willingness to assume the associated financial risk. Compensation should be commensurate with that risk.

Attached as Exhibit B is a suggested amendment to the Recommended Opinion and Order to provide Arizona-American's equity investors a return commensurate with the risk to their investment and to generally encourage low-cost capital structures.

RESPECTFULLY SUBMITTED on July 20, 2006.

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SUGGESTED AMENDMENT NO. 1

Page 22, line 12, delete the existing sentence, and replace it with:

"Arizona-American proposes a cost of equity capital of 12 percent; Staff recommends 10.4 percent; and RUCO recommends 10.0%."

Page 31, line 16, delete the existing sentence, and replace it with:

"It would also institute, effective October 1, 2007, a Public Safety surcharge of $1.00 per 1,000 gallons on both the second tier and third tier residential commodity rate and on the second tier commercial commodity rate."

Page 44, line 8, delete the capitalized term "Commercial Customers," and replace it with:

"Commercial and Turf Facility Customers."

Page 44, line 20, delete the capitalized term "Commercial Customers," and replace it with:

"Commercial and Turf Facility Customers."

SUGGESTED AMENDMENT NO. 2

Delete from Page 27, line 13 through page 29, line 2. Insert as follows:

Ultimately, the parties' ROE estimates for their sample companies do not differ that much. Based on his water-company sample, Dr. Vilbert applied standard ROE estimation methodologies to arrive at a range of ROE estimates from 7.2 to 10.8%. Applying the same methodologies to his gas-company sample, Dr. Vilbert calculated an ROE range of 7.7 to 9.6%. Staff's base estimate of 10.0% and RUCO's base estimate of 9.5% fall squarely within Dr. Vilbert's overall range of 7.2 to 10.8% for his two samples.

The parties also do not disagree about the need to compensate equity investors for greater leverage. Staff states:

> Because Arizona-American PV's capital structure is more highly leveraged that the sample water utilities capital structures, its stockholders bear additional financial risk. As a result its cost of equity is higher than that of water companies in Staff's sample[1]

RUCO agrees:

> Publicly traded companies with a level of debt similar to the Company's would be perceived as riskier than the average of the sample and would therefore have a higher expected return on common equity.[2]

Because the parties agree on the need to provide equity investors with greater returns as leverage increases, the only remaining issue is how to correctly compensate equity investors for leverage increases.

A fundamental premise of modern financial theory is that overall weighted average returns to investors are constant over a wide range of equity ratios. However, both RUCO's and Staff's methodologies give results that are inconsistent with this premise. Their calculated after-tax costs of capital do vary as equity ratios change. Two examples confirm this.

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[1] Staff Brief, pp. 15-16.

[2] RUCO Brief, p. 26.

If Arizona-American's leverage were exactly the same as Mr. Rigsby's sample company's, he would clearly (and correctly) not have recommended any leverage adjustment to his 9.5% ROE recommendation. In that case, the Company's after-tax cost of capital would be calculated as shown in Table 1:

Table 1 – RUCO: AAW's ATWACC (assuming equal leverage as sample companies)

	% Equity	Return	% LT Debt	Return	After-tax Return	After-tax WACC
AAW - Same Leverage	49.90%	9.50	50.10%	5.42	3.28	6.38%

The total after tax cost to Arizona-American's customers would be 6.38% and rates would be set based on this return.

If RUCO's leverage adjustment were correct, the after-tax weighted cost of capital to customers should not change when Arizona-American's actual leverage is considered. However, this is not the case, as Table 2 shows:

Table 2 – RUCO: AAW's ATWACC (actual equity ratio of 36.7%)

	% Equity	Return	% LT Debt	Return	After-tax Return	After-tax WACC
AAW - Actual leverage	36.70%	10.00	63.30%	5.42	3.28	5.75%

Table 2 demonstrates that RUCO's 50-basis-point adjustment (from 9.5 to 10.0%) was inadequate, because the after-tax weighted cost of capital plummeted from 6.38% to 5.75%, even though the debt cost did not change. Therefore, equity investors would now be inadequately compensated for the increased risk of the more highly leveraged capital structure. Customers certainly benefit from the Company's higher percentage of low-cost, tax-shielded debt, but would not be compensating the Company's equity investors for their greater financial risk. This is fundamentally unfair.

The same points made concerning RUCO's ROE testimony also apply to Staff's ROE testimony.

Table 3 – Staff: AAW's ATWACC (assuming equal leverage as sample companies)

Staff	% Equity	Return	% LT Debt	Return	After-tax Return	After-tax WACC
AAW - Same Leverage	49.10%	9.80	50.90%	5.42	3.28	6.48%

The resulting ATWACC would be 6.48%. *This is exactly the same ATWACC requested by the Company.*

Again, if we use the Company's actual equity ratio of 36.7%, along with Staff's 60-basis-point adjustment, ATWACC drops significantly.

Table 4 – Staff: AAW's ATWACC (actual equity ratio of 36.7%)

Staff	% Equity	Return	% LT Debt	Return	After-tax Return	After-tax WACC
AAW - Actual Leverage	36.70%	10.40	63.30%	5.42	3.28	5.89%

Even after applying the Staff's 60-basis-point upward ROE adjustment, the ATWACC has still dropped by almost 60 basis points.

Table 5 is reprinted from Arizona-American's brief.

Table 5 – Recent ACC Overall Cost of Capital Awards

Utility	**Decision**	**Year**	**% Equity**	**Return**	**% P'fd Equity**	Return	**% ST Debt**	Return	After-tax Return	**% LT Debt**	Return	After-tax Return	**After-tax WACC**
AAW RUCO		**2006**	**36.70%**	**10.00**					0.00	**63.30%**	**5.42**	3.28	**5.75%**
AAW Staff		**2006**	**36.70%**	**10.40**					0.00	**63.30%**	**5.42**	3.28	**5.89%**
AAW Requested		**2005**	**36.70%**	**12.00**					0.00	**63.30%**	**5.42**	3.28	**6.48%**
Southwest Gas	68487	2005	40.00%	9.50	5.00%	8.20			0.00	55.00%	7.61	4.60	**6.74%**
Pineview Water	67989	2005	51.00%	8.90					0.00	49.00%	5.43	3.29	**6.15%**
APS	67744	2005	55.00%	10.25					0.00	45.00%	5.80	3.51	**7.22%**
Chapparal City	68176	2005	58.73%	9.30					0.00	41.27%	5.10	3.09	**6.74%**
AZ Water Eastern	66849	2004	66.20%	9.20			5.60%	4.00	2.42	28.00%	8.46	5.12	**7.66%**
AZ Water Western	68302	2005	73.40%	9.10					0.00	26.60%	8.40	5.08	**8.03%**
Las Quintas Serenas	67455	2005	100.00%	8.10					0.00	0.00%	0.00	0.00	**8.10%**
Rio Rico Utilities	67279	2004	100.00%	8.70					0.00	0.00%	0.00	0.00	**8.70%**

The trend is clear; the greater a company's leverage, the lower the ATWACC awarded by this Commission. Clearly, the existing methodologies we have used at the Commission to adjust returns for leverage have been biased against companies with higher levels of low-cost, tax-shielded, debt.

Staff and RUCO challenge the Company's methodology because it is not yet widely used by state regulatory commissions. However, the methodology method has been accepted in many jurisdictions outside the United States. In the last 15 years, government-owned utilities have been privatized in countries such as Australia, New Zealand, and Great Britain.[3] Regulators in these countries were able to study regulatory regimes throughout the world, including U.S. state and federal rate-regulatory bodies. They were able to evaluate what worked best in the other regimes and update their rate-setting methodologies to incorporate the latest in financial research.[4] Regulators in these countries now set rates based on methodologies consistent with that advocated by Arizona-American.

In the U.S., the federal government's newest rate regulation body, the Surface Transportation Board was established in 1995.[5] It was also able to take advantage of the latest financial research. It also uses market value weights to determine the required rates of return for interstate railroads, as recognized by the most widely used financial textbook in U.S. universities: Brealey and Myers, *Principles of Corporate Finance.*[6] The Missouri Public Service Commission has also recently adapted a similar methodology.[7] Ultimately, if the mere fact that an advance in technique has not yet been widely incorporated were to prevent its adoption by regulators, there would be no changes in regulatory procedures in the U.S.

Staff and RUCO have been unable to show that the Company's methodology is not theoretically sound or would lead to unjust or unreasonable results. Clearly, there is a problem with the way the Commission is presently adjusting ROEs for leverage differences. As Table 5 demonstrates, customers have been overpaying equity investors in companies with little leverage and underpaying equity investors in companies with more leverage than the industry average. Further, when equity investors are under-compensated for their investments, they are less likely

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[3] *Id.*, p. 29.

[4] *Id.* pp. 29-30.

[5] http://www.stb.dot.gov/stb/about/overview.html.

[6] Now in its 8th edition, 2006. The Brealey and Myers textbook has also been cited as authority dozens of times in Staff's own cost-of-capital testimony.

[7] Rebuttal Testimony of A. Lawrence Kolbe, Hearing Exh. A-11 at 5.

to want to make future investments. Given the large capital commitments facing Arizona utilities, this Commission does not want to discourage future investments by equity investors in more leveraged companies.

Customers also benefit from rational investment decisions. Interest payments on debt are expenses for tax purposes, so the revenue requirement associated with a dollar of debt investment is substantially lower in today's markets than for a dollar of equity investment. Companies <u>should</u> be encouraged, within reason, to finance new investments by borrowing instead of issuing equity.

Because customers will benefit if new equity investment is encouraged and rational debt financing is not discouraged, we will accept Arizona-American's methodology to adjust ROEs for leverage. We therefore adopt a cost of equity of 12.0 percent, which results in an overall weighted cost of capital of 7.82%.

Page 29, lines 5-8. Delete the table and insert the following:

	Percentage	Cost	Weighted Cost
Long-Term Debt	63.3 %	5.4 %	3.42 %
Common Equity	36. %	12.0 %	4.40 %
Weighted Average Cost of Capital			7.82 %

It is important to note that, even with a 12% ROE, Arizona-American's customers will benefit from one of the lowest overall costs of capital of all the Arizona utilities regulated by the Commission. Arizona-American is the largest water utility in the state. By comparison to Arizona-American's 7.82% WACC, customers of the largest electric utility in the state, Arizona Public Service pay 8.25% WACC.[8] Customers of the largest gas utility in Arizona, Southwest Gas Corporation, pay 8.40%.[9] Customers of the Western Division of Arizona's second largest

[8] Decision No. 67744, dated April 7, 2005.

[9] Decision No. 68487, dated February 23, 2006.

water utility, Arizona Water Company, pay 8.90%.[10] Finally, as shown in Table 5, when we account for Arizona-American's greater leverage and the tax-favored status of debt capital, the actual cost advantage enjoyed by Arizona-American's customers is even greater.

Remainder of Order – Make conforming changes to reflect increased Weighted Cost of Capital.

[10] Decision No. 68302, dated November 14, 2005.